MODERN METHODS FOR MONITORING THE TECHNICAL OPERATION OF BUILDINGS AND STRUCTURES
(course title)

COURSE SYLLABUS ABSTRACT

6-05-0732-02 Real Estate Appraisal and Management
(speciality code and name)

	STUDY MODE
	full-time
Year	4
Semester	7
Lectures, hours	16
Practical classes (seminars), hours	16
Course paper, semester	7
Pass/fail, semester	7
Contact hours	32
Independent study, hours	76
Total course duration in hours / credit units	108/3.0

1. Course outline. 1. Introduction. 2. Inspection of buildings and structures, establishment of their technical condition. 3. Assessment of the technical condition and methods of reinforcement of reinforced concrete structures. 4. Assessment of the technical condition and methods of strengthening stone structures. 5. Assessment of the technical condition and methods of strengthening steel structures. 6. Assessment of the technical condition and methods of strengthening wooden structures. 7. Assessment of the technical condition and methods of strengthening foundations and foundations. 8. Running and capital repairs, restoration, modernization: the composition of project documentation, the main types of work.
2. Course learning outcomes. Upon completion of the course, students will be expected to
know: basic methods of diagnostics and monitoring of building structures; modern devices and equipment for diagnostics and monitoring of building structures; types and mechanisms of aggressive influences, causes of non-compliance with operational requirements; algorithm for assessing the actual technical condition of building structures, methods of their inspection and field tests, defects and damages, their impact on the operational properties of structures; features of performing verification calculations of building structures; methods of restoration and reinforcement of building structures, their classification, examples of calculation and construction of reinforcement structures; graphic design features of reports on the results of diagnostics of the technical condition of building structures;
be able to: perform measurement work and draw up measuring drawings; determine the cause of defects and damage to building structures; assess the technical condition of structures based on existing defects; identify physical wear of the building, determine the level of operational reliability of the building or structure; perform verification calculations, including using software packages, establish the need for reinforcement; develop recommendations for strengthening building structures; perform calculation and design of reinforcement of building structures;
possess: modern methods of inspection of building structures of aboveground and underground parts of the building; principles of reinforcement of building structures: reinforced concrete and stone structures, structures made of wood and plastics, metal structures.
3. Competencies. Apply modern technologies of repair and restoration of building structures for reconstruction of buildings.
4. Requirements and forms of midcourse evaluation and summative assessment. The current certification of students is carried out to determine the compliance of the results of their educational activities with the requirements of educational standards, curriculum documentation of educational programs of higher education. The form of intermediate attestation of students is a pass/fail exam. The intermediate certification is conducted orally.